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# HARDY NUT TREES



J. F. JONES

The Nut Tree Specialist: LANCASTER, PA.

## **FOREWORD**



HE DEMAND for information on hardy nut trees, and as to where they might be grown successfully, has become so great that I have tried to incorporate this information, in so far as I am able, and so far as space will permit, in this little catalogue. It is my desire to make this information as reliable and as accurate as possible, and, to this end, I have traveled quite extensively, for several years, over portions

of several states in which the Pecan and English Walnut are growing and fruiting successfully, and I have made a special study of these trees, observing their behavior in various sections and noting especially the bearing of the trees producing the finest nuts, and which I am either propagating or "holding in the balance" until their record is shown

to be satisfactory under the existing conditions.

In my study of Hardy Pecans, and the selection of varieties for propagation, I have had the coöperation and help of Hon. T. P. Littlepage, President of the Northern Nut-growers Association, Booneville, Indiana, and Washington, D. C., and Hon. Mason J. Niblack, of the Indiana State Board of Agriculture, and several others. In further study of the English Walnut, I have had the coöperation and help of Mr. J. G. Rush and others. Mr. Rush is the originator of the Rush English Walnut, and is the recognized authority on Walnut varieties and Walnut-culture in the eastern states. Mr. Rush's help has been especially valuable to me, as he has tested out a number of varieties, and, with his coöperation and assistance, I have been enabled to work out some of the problems of propagation under conditions here, while my seedling stocks were coming on and before I had disposed of my southern nursery interests, and established myself permanently here.

The propagation of nut trees—Shagbarks, Walnuts and Pecans began as a hobby, and many obstacles and sad disappointments were met before practical results were obtained, as these trees were not to be propagated by ordinary methods, at least with my limited experience and knowledge in the matter. The culture of the trees becomes fascinating as we learn more of them and their individual characteristics: when we know that we have begun right, that we have planted the very best budded or grafted trees obtainable, and the results to be obtained are worthy of our best efforts. They are something "different"—something out of the ordinary, in fruit trees or ornamentals, and they combine, in one tree, the ornamental and useful, or profitable, to the highest degree available in our time. What is more beautiful or striking than a thrifty English Walnut or Pecan tree in full leafage and carrying its load of fruits? The man or woman who will pass such a tree by casually has no eye for the beautiful in nature! What other tree or trees can we plant that will give us such pleasure and satisfaction? What can we plant that is more promising of highly profitable returns than an orchard of these hardy and productive Walnuts and Pecans, when we consider their comparative freedom from diseases and insects? The best point of all is that they are something permanent, and are not gone in a few years, like some of our more common orchard fruits, but live and increase in producing capacity for fifty to one hundred years.

I thank my friends and patrons for past favors shown and for their kindly words of encouragement and appreciation. I solicit your favors with the assurance that it is my desire, and a part of my plan, to give the

very best service possible in my line.

J. F. JONES, Lancaster, Pa.



View in one of my blocks of grafted English Walnut trees

## To Patrons

**Location.** My Nurseries are located near Lancaster, Pennsylvania, in a section noted for its fine farms and homes; the county of Lancaster having stood first, of any county in any state in the Union, in agricultural wealth for a good many years now. The soil and climatic conditions are peculiarly favorable for the growing of hardy nut trees, and I get here a very stocky, well-ripened growth and an especially fine rootsystem. They mature early and harden up their growth especially well, so that they can be safely planted anywhere that nut trees can be grown.

My transportation facilities are as good as the country affords, with quick, through service east, west, north and south. I am on the main line of the Pennsylvania, the finest railroad system in the world, and have also the Philadelphia and Reading Railway.

All Illustrations in this catalogue are from photographs made by me, and the pictures of nuts are natural size. All nursery views and trees, unless otherwise noted, are from photographs taken in my own nurseries, or on the grounds of Mr. J. G. Rush. The illustration on the front cover shows a small branch from a bearing English Walnut tree. It will be noticed that the husks are bursting open to release the nuts. Unlike the Black Walnut, the husk on the English Walnut bursts open and releases the nut when ripe.

**When to Plant.** My hardy northern-grown trees may be planted either spring or fall. Fall-planted trees, at least north of this latitude, should have some protection the first winter. The body of the tree may be wrapped with burlap, straw or other material that will afford protection and yet not exclude the air and moisture.

**I Guarantee** all trees sent out to be well grown, carefully packed and true to label. I am especially careful to have all my "mother blocks" and nursery trees true to name, and stand ready to replace, on proper proof, any trees that may not prove true to label, but am not liable for further damages.

I Prune Trees ready for planting when so instructed, and wax over the cuts with a specially prepared, tough wax, applied hot.

**How to Order.** For your convenience I am inclosing an order blank. Money can be sent by bank draft, postal or express money orders, or registered letter.

### A Bit of Personal History as it Relates to My Nursery Work

The propagation of nut trees was begun by me because of a natural inclination for the work, with little thought then of remuneration from the sale of trees. Had this been a business venture in the beginning, I fear that I should have given it up; but there was to me a peculiar fascination about this work, and although my first efforts in my native state, Missouri, were anything but successful, these failures only pushed me up to greater effort and more extended experimental work, with the result that I was finally able to get what, to me, were flattering results, although the average nurseryman, looking at the matter from a business standpoint, would have considered my stands of buds and grafts at that time anything but satisfactory, and my methods of doing the work too slow to be practical. With my unbounded enthusiasm, however, I could see only the bright side of the thing.

Well do I remember a call from an old, experienced nurserymen, who found me ring-budding a row of small English Walnut stocks. After looking at what I was doing, ring-budding a row of small English Walnut stocks. After looking at what I was doing, and after watching the slow and painstaking work of ring-budding two of these seedlings, his remarks, as I remember them now, were about as follows: "John, that is too slow for me; what are you going to do with these trees, anyway. Why, you would have to get \$5 a tree to pay you. You had better grow something that you can sell." My work appeared to worry this man particularly because, as he said, he felt that I was wasting my time "fooling" with those nut trees; and, as I had helped him in his budding, he knew that I had the ability to "go some" in budding ordinary fruit trees.

With the increasing interest in Pecan-growing in the South, and believing that this put had a great future. I entered the southern field, and began the propagation of

this nut had a great future, I entered the southern field, and began the propagation of the Pecan on a large scale in 1901. My efforts, under the conditions in north Florida, were very successful, and I soon had the largest and finest stock of budded and grafted

Pecan trees in the South.

I can point with some pride and satisfaction to bearing Pecan orchards all over the South grown from my trees. These orchards are from a few trees up to the largest orchards of several hundred acres in extent.

I have never lost interest in the propagation of nut trees other than the Pecan, and the finest varieties obtainable of the English Walnut, Shagbark, Hickory, Chestnut and Filbert were soon added to the list. Sales of these trees, for the most part, were made in the northern states, and I found myself at once greatly handicapped, and not able to give satisfactory service farther north. Growth started in the lower South a month or more before the trees could be shipped and safely planted out in the northern states in the spring. Grown under "hothouse" conditions, my trees did not ripen their wood up sufficiently that they could be safely planted in the northern states in the fall.

I found, to my further regret, that even when these southern-grown trees were held in cellars, and planted at the proper time in the spring, they were not satisfactory, as they could not be induced to put forth growth, as a rule, before midsummer, even when well cut back and well cared for, with the inevitable result that they were caught by freezing weather before they had properly matured and ripened their growth, and they

were killed by the first hard freeze.

The selection of my present location here was made after extensive travel and investigation, and I believe that I have the best possible natural advantages for the growing and dissemination of hardy nut trees.



English Wainut gratted upon Black Walnut stock. Close view, showing union of stock and scion. Tree 1 foot in diameter.



View in the Pecan nursery, showing one season's growth from the bud—4 to 6 feet. The Pecan, unlike the other hickories, is of very vigorous and rapid growth

# Nut Trees My Specialty

I grow nothing but nut trees, giving my undivided time and attention to their propagation; therefore, I can and do grow better stock and give better service than it is possible for the general nurseryman to do. The general nurseryman, growing a variety of stock, necessarily works along the lines of least resistance, and the propagation of nut trees, or other specially difficult subjects, is generally left to the few who, by patience and persistent effort, have become experts in this line of work.

The Price of Northern-grown Trees is necessarily comparatively high, as the propagation of these trees, under northern conditions, is much more difficult than in the lower South, where the southern Pecan trees are propagated. However, as these trees are planted 40 to 60 feet apart in orchard form, the cost per acre is not very much more than for first-class trees of our more common fruits, especially when we consider the permanency of the nut trees.

#### THE PECAN

The Pecan is found growing naturally, as a forest tree, in the valleys or riverbottoms along the Mississippi, Missouri, Ohio, Wabash and Osage Rivers; also in Texas, along the Trinity, Brazos, Colorado and Rio Grande Rivers. As the tree was found growing naturally only in the river-bottoms or valleys, it was formerly thought that it would not succeed on higher elevations or on dry soils; but occasional trees have been planted, and are growing and fruiting successfully on a great variety of soils, from Illinois, Indiana and Ohio on the north, to the Gulf Coast and Florida on the south, and from the Atlantic to the Pacific, barring, of course, the arid-plains states and the Rocky Mountains.

Enterprising Pecan-growers in the South demonstrated many years ago that the Pecan could be very successfully and profitably grown on any good land that would grow good farm crops of corn or cotton, and today some of the finest and most profitable southern orchards are in Georgia, Alabama, Mississippi and Florida, in high locations and comparatively poor soils. These orchards are far removed from the natural habitat

of the tree, which, at the nearest point, is along the lower Mississippi River.

#### PECANS, continued

The tree, perhaps, bears earlier and more abundantly, at least while young, on the "uplands," than it does in the valleys or river-bottoms. Some of the largest and finest orchards in the states mentioned are growing upon light, sandy "pine lands," decidedly lacking in natural fertility, and, therefore, of little practical value for the growing of ordinary farm crops; but, when the trees are well fertilized and cultivated on these light lands, the growth is rapid and the trees bear early and abundantly.

The Pecan tree is the most cos-

Pecan Tree

The Pecan tree is the most cosmopolitan that we have as regards its adaptability to various soils and climatic conditions. It is found growing naturally as far north as Davenport, Iowa, where the tree is exposed to winter temperatures as low as 40 degrees below zero occasionally, and from there, in practically an unbroken chain, along the Mississippi River to the Gulf Coast, where the orange, fig and other subtropical fruits thrive. The tree reaches the tropics, in its natural range, along the lower Rio Grande River.

During the past twelve years I have shipped Pecan trees of the southern varieties to all of the southern states, from Virginia south and westward and including California; also to Mexico, Cuba and the Isle of Pines. In tropical countries the tree is said to hold its leaves all winter, and will probably never bear satisfactorily, but its successful growth in humid tropical countries, and in varieties which are hardy in Illinois, Indiana, Ohio and Pennsylvania, stamps it as the most wonderful tree in the world, as regards its ability to adapt itself to extremes of temperature and variations of climate.

Its behavior on various soils and locations is no less striking. It is found growing from the lower river-bottoms, where it is occasionally flooded for several weeks at a time, up to at least 1,500 feet elevation, and on all kinds

of soil, from the clays and clay loams to the lightest and poorest sandy soils, which grow the "scrub pine." One of the oldest and largest Pecan trees that I have seen in Pennsylvania is growing near Colemanville, Lancaster County. This tree is growing on a steep, stony hillside, but it is thrifty and bears good crops of small seedling nuts, to the delight of the red squirrels, which get the larger share of the nuts, as the tree is growing quite near the forest.

There are larger wild Pecan trees, and more of them growing together, in Indiana, Illinois and Kentucky than in any given locality farther south, according to my observation. The largest and finest natural grove that I have seen is in Henderson County, Kentucky, along the Ohio River. This grove covers 500 to 600 acres in a solid body, and the trees are of large to very large size. A good many of these trees have trunkdiameters of 3 to 5½ feet, and are estimated to be 150 to 190 feet high.

Some of the finest and most productive northern varieties that have been discovered, and which I am now propagating by budding and grafting, have been found near the northern limit of the Pecan's natural range, and as these trees will be unquestionably hardy, and will mature their fruit anywhere that our more common

#### PECANS, continued

orchard fruits can be grown, the area of the successful culture of this delicious and high-priced nut can now be greatly extended very profitably. The fruit of these northern varieties can and will compete very successfully with the best southern product.

Some of the finest Indiana varieties bear nuts, under northern conditions, nearly as large as the best and most largely planted southern varieties, and the northern varieties selected for propagation are always well filled and of better quality than the finest southern varieties.

varieties.

All who have eaten these nuts agree with me that such high quality and "nutty" flavor are not found in any of the varieties now grown in the lower South.

#### Budded and Grafted Trees Bear Early

The Pecan industry in the northern states is in its infancy as yet, and there are no budded or grafted trees in bearing, grafted trees of northern varieties having first been offered last season. Grafted trees of southern varieties bear very early, however, and I have every reason

Young 2-year budded Busseron Pecan Tree bearing

Young 2-year budded Busseron Pecan Tree bearing in the nnrsery row. This little tree matured one nut this season. This and other evidence shows conclusively that budded trees will bear early.

to believe that the northern varieties will behave likewise. I have seen seedling trees of this type growing in the forest, only ten years old, bearing quite satisfactorily indeed. It is to be expected that the age of bearing will be cut in two with grafted or budded trees in the North, as well as in the South.

**BUSSERON.** Originated in Knox County, Indiana. The Busseron is one of the best of the Indiana varieties. The nut is large, of good quality and fine appearance. Mr. Niblack says the old Busseron tree has the greatest bearing record of any Pecan tree in the state of Indiana, and annually bears large crops of the finest nuts.

**BUTTERICK.** Originated near Mt. Carmel, Illinois, in the Wabash Valley. The Butterick is one

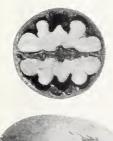
of the finest Pecans that has been brought to my notice. The nut is large and a real paper-shell. The meat is full and plump and of excellent quality. The original tree bears very heavily, having produced 350 pounds of excellent Pecans on the "off year," 1913, when the crop in gen-

eral in that section was very light. The Butterick combines large size, a real paper-shell nut of high quality and a very vigorous and productive tree, making it highly desirable for market plantings as well as for home use.



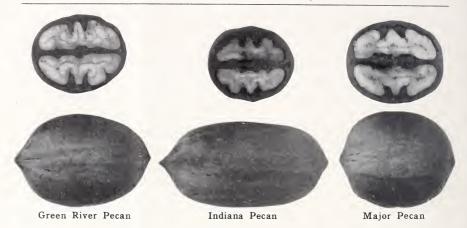


Busseron Pecan





Butterick Pecan



#### PECANS, continued

**GREEN RIVER.** Originated in Henderson County, Kentucky. The original tree is very large and tall. The nut is medium size; the kernel is very plump and full, and is easily extracted. This Pecan is a real paper-shell, and can't be beaten in quality. The tree is an excellent bearer. This is my favorite for home use.

**INDIANA.** Thought to be a seedling of the Busseron, as the tree is younger and is growing near the Busseron tree. With my present knowledge, if I were planting a commercial orchard, this variety would be my first choice. The nut is large, shell soft, meat full and of very good quality. The original tree of the Indiana is the greatest bearer I have ever seen, either North or South, very desirable for any purpose.

**MAJOR.** Originated in Henderson County, Kentucky. The original tree is very large and tall. The nut is small to medium in size and nearly round. The shell is soft and the kernel rich and of excellent quality. This will be the favorite with confectioners, as the plump, round, attractive meats are easily extracted. Also one of the best for home use.

**WARRICK.** Originated in Warrick County, Indiana. The Warrick is one of the largest and finest of the Indiana Pecans. The nut is uniform in size, of light color, and is very attractive. The original tree, still standing in Indiana, and of very large size, has a good bearing record, as observed by Mr. Littlepage, and I recommend it for extensive planting.

Prices of budded or grafted northern-grown Pecan trees of the above varieties: 2 to 3 feet, \$1.75 each; 3 to 4 feet, \$2 each; 4 to 5 feet, \$2.25 each; larger size, extra-select, \$2.50 each. Write for prices on larger quantities, stating quantity, varieties and sizes wanted.

#### THE ENGLISH or PERSIAN WALNUT

The English or Persian Walnut (called "Dutch Nut" here in Pennsylvania) was first introduced here by the early German settlers, and, perhaps, the first trees planted in this country were either planted here or at Germantown, Philadelphia. The tree appears to be right at home here, and many large, thrifty old trees attest to the forethought of the early German settlers, who brought either seed nuts or trees with them from the Fatherland. In obtaining information on several hardy and productive English Walnut trees growing in other states, I find that these trees have been grown from seed nuts obtained from these trees, so that the English Walnut industry in the eastern and northern states may be said to have started from such of these trees, imported and planted by the German settlers, as proved to be hardy and productive under our conditions.

The English Walnut has been grown quite extensively in portions of California for a good many years, and, with the introduction of the hardy French varieties, Oregon and Washington were added to the list of Walnut-growing states. Now the finest orchards of English Walnuts on the Pacific Coast are to be found in these states.

Although occasional trees of the English Walnut have been growing and fruiting well in portions of several eastern and northern states for many years, comparatively few attempts have been made to grow this nut in a commercial way, as attempts to

#### ENGLISH or PERSIAN WALNUTS, continued

propagate the trees by budding or grafting, until quite recently, have not been successful. Seedling trees, under our conditions, have proved very freakish and unreliable, as they are generally decidedly lacking in vigor and, therefore, in hardiness. Even when the trees were grown from seed nuts taken from known hardy and productive trees and

such trees as proved to be vigorous and hardy, they were not to be depended upon to bear satisfactorily or to produce nuts of large size and of good

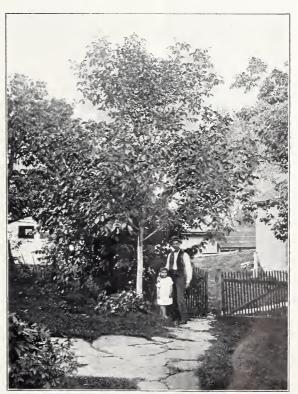
quality.

With the increasing and widespread interest in nutculture in recent years, there came an urgent demand for dependable trees for northern planting. I felt the urgent need of the propagation, by budding or grafting, of the best of these hardy and productive English Walnuts, as well as hardy and dependable varieties of the Pecan. The English Walnut is more difficult to propagate, by budding and grafting, than either the Pecan or Shagbark, under northern conditions: but I have perfected methods that are giving fairly satisfactory results here in Pennsylvania, and, as soon as my mother blocks have sufficient capacity, I expect to propagate these trees on an extensive scale.

So far as I know, I was the first to propagate the English Walnut successfully east of the Rocky Mountains, and the first to use our native Black Walnut as a stock on which to bud and graft the English varieties in nursery propagation. The results being obtained are very gratifying, and I look forward with confidence to a growing and very profitable Walnut industry in the eastern states.



View in Mr. A. H. Thompson's bearing English Walnut orchard of 225 trees near Rochester, N. Y.



A grafted tree of the Rush English Walnut, planted in the spring of 1905. This tree has been bearing well for several years. Mr. Rush and Mildred Jones near the tree.

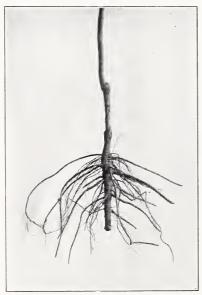
<sup>&</sup>quot;Your very interesting catalogue at hand. We want to plant a few Pecan trees, also Walnuts, for shade and fruit. We now have three Pomeroy Walnut trees two years old, which are doing finely."—W. A. Henry & Son, Wallingford, Conn., Mar. 21, '14



View in one of the Walnut nurseries, showing one season's growth from the bud-4 to 6 ft

#### Where the English Walnut May be Grown

I find the English Walnut already growing successfully in several eastern and northern states besides Pennsylvania. It is found growing and fruiting in portions



Walnut tree showing lateral root-system that we get here in Pennsylvania

of New York, Ohio, Michigan, Connecticut, New Jersey, Maryland, Delaware and Vir-ginia; also in the elevated or northern portions of North and South Carolina, Georgia and Alabama. For the most part, these trees are found only as isolated specimens, or at least only a few trees in any given locality; but there are a few exceptions, as in portions of New York, Pennsylvania, New Jersey and Maryland, where an occasional orchard, usually small in extent, has been planted out. The largest bearing orchard, of which information has reached me, is near Rochester, N. Y. This orchard contains 225 trees planted on eleven acres. The elevated portions of the states to the south of us, from Virginia westward, are admirably adapted to the English Walnut, but the Gulf Coast is not suited to these trees; neither is the Mississippi Valley, at least the southern portion; neither are the heavy black lands in portions of some of the more western states, in my opinion.

A fairly safe rule in judging as to whether or not your climate and soil are suited to these trees is to plant only on land that will grow the apple or similar fruits successfully, yet where the climate is not too severe to grow and fruit the peach successfully. This has reference only to budded or grafted trees of known hardy and productive varieties,

worked on the Black Walnut or other hardy and vigorous stocks, which are suited to the conditions where the trees are to be grown. I have never seen a successful seedling English Walnut tree west of Ohio or south of Michigan; but young trees which have been grafted upon the Black Walnut stock are now growing successfully where seedling trees have failed repeatedly. The use of vigorous and hardy stocks, adapted to a wider range of soils, gives promise of extending the cultural area of this nut very materially, as well as making the trees more vigorous and more hardy for any and all locations.

The writer planted the first grafted English Walnut trees that were planted in

the state of Missouri. These were imported trees, pot-grown and grafted under glass, in France. These trees were planted on my fruit-farm in the Ozark Mountains, at an elevation of 1,550 feet. These trees were grafted upon stocks of their own species, and, although they survived the winters there for several years without apparent injury,

they made no appreciable growth, and finally died out altogether.

Unfortunately, all of my early grafting in Missouri was on English Walnut stocks and, while they grew better than the pot-grown trees, they finally became weakened and died out like the imported trees. Not far from where my fruit-farm was located, however, two Black Walnut trees, grafted by a Mr. Fry, with scions taken from a young Franquette seedling, grew vigorously and made fine trees. These trees were examined by the writer in the summer after the hard freeze in February, 1899, and not a twig had been injured, although the mercury reached the unprecedented low level, for that

section, of 32 degrees below zero.

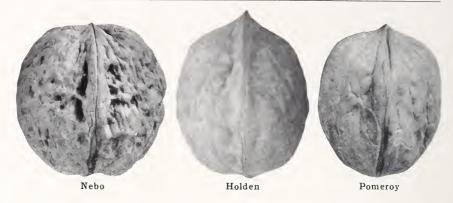
Where the English Walnut is not grown and, therefore, little known, the general impression appears to be that the tree is suited only to warm or semitropical climates. The truth is that the tree is a failure in very warm climates, at least as regards its bearing. The tree does its best in bearing and in the quality of fruit produced in cool climates, and where the tree grows well and ripens its growth up early and well, it will stand quite low temperatures without injury. Here in Pennsylvania the tree is perfectly hardy, healthy and long-lived, although the winters are sometimes quite severe. The extreme cold winter of 1911-12 did not injure any of the thrifty grafted trees here.

"The stately Pecan and the sturdy Shagbark can be made to replace, North and South, the millions of poplars, willows and other 'bunches of other 'bunches of leaves' which please the eye but render no the eye but remail or valuable annual or The final returns. chief reason why this has not been done is because people have not thought about it. —Dr. R. T. Morris, (Dr. Morris is expresident of the Northern Nut Growers Association.)

"I am confident there is a great future here for the improved varieties of English Walnuts. I am a native of south Germany. near the French border, where the English Walnut grows to perfection. Trees attain an immense size there and are very prolific. They are all seedlings and vary considerably, although they have a variety (Walsch Nuts they call them) of very arge size." - JOHN FLICK, Zionsville, Pa.



Rush English Walnut tree



#### Some Advantages of Eastern Conditions

A study of conditions would indicate that the Walnut-grower in the eastern states, who plants hardy and productive varieties budded or grafted on the Black Walnut or other vigorous and hardy stocks, will probably suffer less from frost injury than does the California grower, where the Walnut is grown so extensively and so profitably. In some of the valleys in California, where the English Walnut is extensively grown, the tree is sometimes injured by winter temperatures of 16 to 22 degrees above zero, while here in Pennsylvania vigorous and hardy trees are not at all injured by temperatures of 16 to 22 degrees below zero. This shows the wonderful adaptability of the tree.



Young budded English Walnut tree, three years old, in bearing.

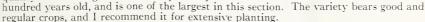
The hat shows the size of the tree and the fruit

We have varieties which produce, under eastern conditions, fruit equal to the best California product in size and appearance, and superior to the California product in quality. Instead of having to ship our product across the continent, and being at the mercy of the transcontinental railroads, we have the best markets in the world for Walnuts right at our door. We have another advantage over the Pacific Coast in the season of ripening of our Walnuts. Right here in Pennsylvania the crop is ripe and falls from the trees early in September, a month before the California crop is ripe, and two months before the imported Walnuts reach our markets.

RUSH. Originated by Mr. J. G. Rush, of this county. The Rush has the distinction of being the first eastern variety to be propagated. It was first named and propagated by me in 1903, and catalogued and introduced from my Florida nurseries in 1904. This is

one of the best and most desirable varieties. The nut is medium to large, quite smooth and attractive; the kernel is full and of very good quality. The tree is exceptionally strong and vigorous in growth, becoming in time large, beautiful and impressive. It bears good crops of fruit very young and very regularly. It is one of the best self-pollinators that I have observed, and is, perhaps, the best variety to plant near or among other varieties to insure their being properly pollinated, and thus insure the bearing of good and regular crops of the finest-quality nuts.

**NEBO.** Also originated in this county. This we consider one of our finest varieties. The nut is quite large, being of the Parisienne type, and the kernel is full and of very good quality. The original tree is probably one





Thomas



Mayette

**THOMAS BLACK WALNUT.** The Thomas is by far the finest Black Walnut that I have been able to find, and will please anyone wanting the best. The tree will succeed with little or no attention in almost any situation. The grafted trees bear very early and very abundantly. The nut is very large; the meat is plump, white and of excellent quality: the shell is thin and the cracking quality excellent. Prices of grafted trees: 2 to 3 ft., SI each; 3 to 4 ft., SI.25 each; 4 to 6 feet, SI.50 each.

**HOLDEN.** Originated near Rochester, New York. Named for the originator, and now offered for the first time. My attention was first called to this excellent variety by Dr. W. C. Deming, Secretary of the Northern Nut-Growers Association, Georgetown, Connecticut. The nut is large, very smooth and very attractive. The kernel is plump and of excellent quality. The original tree is comparatively young, but

bears good and regular crops of fine nuts. This is the hardest variety to propagate in the list, and the supply of trees limited; not more than one tree will be sold to one customer this season.

**POMEROY.** Originated near Lockport, New York. This variety has been quite largely disseminated in the form of seedling trees, with the evident belief that they would produce true to type. I have examined a number of these trees, however, and find that the fruit varies greatly in size and thickness of shell, and doubtless the trees will vary still more in their bearing propensity. I noticed in an orchard of these seedlings.

planted near Philadelphia, a number of trees which were evidently hybrids of the Black Walnut, or butternut. These hybrids, so far as I have observed them, are of little practical value. The Pomeroy nut is of medium size; the shell is not so soft as some, but the cracking quality is very good and the kernel is full, very plump and of excellent quality. In my opinion, this nut is one of the best in quality of kernel. It is a very thrifty grower and makes a beautiful tree. One of the hardiest trees and best bearers that I have. This is the easiest variety in the list to propagate.

**MAYETTE.** Originated in France, and is quite largely grown in the Grenoble district. Nut quite large, smooth and of very fine appearance. This is considered the finest Walnut that reaches the New York markets where it is called the Grenoble Walnut, and always brings the highest prices, especially around the holiday seasons. This and the following hardy French Walnuts are perfectly hardy here in Pennsylvania. I have no trees in bearing, and therefore



Rusk

#### WALNUTS, continued

can't say what they will do in this respect; but see no reason why they won't bear as well as any other hardy Walnuts. The tree is strong and vigorous in growth, and very handsome.

**FRANQUETTE.** One of the best of the French Walnuts and is being more largely planted, perhaps, on the Pacific Coast than any other. The nut is quite large and smooth, and sells for good prices. This is one of the nuts which proved so successful in the extreme West and has made the growing of English Walnuts such a profitable industry in Washington and Oregon.

Prices of all English Walnut trees, grafted on Black Walnut stock, 2 to 3 ft., \$1.75 each; 3 to 4 ft., \$2 each: 4 to 5 ft., \$2.25 each; larger sizes, \$2.50 each. Write for prices on larger quantities, stating quantity, varieties and sizes wanted.

#### THE CHESTNUT

The Chestnut is especially adapted to mountain soils, and grows naturally up to at least 3,000 feet elevation. The tree succeeds on any fairly light, well-drained soil, also on rough, stony land where little else will grow. No collection of nut trees is complete without some Chestnut trees, and the following will be found the best to be had.



Paragon Chestnuts

**PARAGON.** Originated at Germantown, Philadelphia. The most widely disseminated and the most popular Chestnut ever introduced. The nut is very large and the best in quality of any of the large Chestnuts of the European type. The

tree bears very young, generally the second or third year, and so abundantly that for best results it is necessary to thin the nuts by knocking off a portion of the burs. If this is not done, the heavy bearing on very young trees will prevent their making satisfactory growth. This variety is also known as "Sober

Paragon," under which name it has been widely disseminated by a New York firm, Captain Sober, of Union County, Pennsylvania, being one of the first to propagate the variety extensively, and one of the first to use it in extensive sprout grafting.

**ROCHESTER.** Originated with the veteran Illinois fruit-grower and hybridizer, E. A. Riehl. Supposed to be a native Sweet Chestnut, but the nut is so much larger than the type as to suggest the possibility of its being a hybrid, although the tree shows none of the European or Oriental characteristics. The nut is very large for this type, and the quality is sweet and excellent. A very valuable Chestnut for any purpose, as it bears good and regular crops, which sell for the highest prices. The tree is very regular and handsome in growth, with attractive foliage.

BOONE. Originated with the late Geo. W. Endicott, of southern Illinois. This is a hybrid of the American Sweet and a select Japan variety. The tree resembles the Japan type somewhat, and, like the Japan, bears very young. This nut combines the large size and fine appearance of the Japans with the high quality of the Sweet Chestnut to a remarkable degree, and will give highly satisfactory results, I feel

sure, in any locality.

The Japans are more resistant to blight than the American or European types, and those wishing resistant varieties will do

well to try the Boone.

RUSH HYBRID CHINQUA-PIN. Originated in this county, and thought to be a hybrid of the Bush Chinquapin and the Sweet Chestnut. The nut is



Rochester Chestnuts

# SUPPLEMENTARY CATALOGUE, 1915-1916

J. F. JONES, The Nut Tree Specialist, Lancaster, Pa.

The Hardy French Walnuts: Owing to the success of the hardy, late vegetating, French strains of the English or Persian walnut in Washington and Oregon, where most other varieties have not proven hardy and otherwise very unreliable, I have had great faith in the Mayette and Franquette for eastern planting. My faith in these varieties has been greatly strengthened within the past year. There are many fine bearing trees of these two strains of walnuts in Western New York and Ontario, also scattered trees in many other eastern states. It was with much pleasure that those of us attending the convention at Rochester, N. Y., September 1st and 2d, accepted the invitation so generously extended to us to tour that section and see some of the fine English Walnut trees. We were shown many large, thrifty, bearing trees, fifty, seventy-five and as much as 105 years old. All were pleased with the healthy, vigorous trees seen and, above all, with the fine crops many of the trees were producing. A very large tree, 75 years old, near Charlotte, N. Y., some of our party estimated the crop at 20 bushels, while others, more conservative, said 10 or 12 bushels. Anyway, the tree had a very fine crop on it, which was distributed all over the tree, from the ground to



Fig. 1. From a photo showing a portion of the lower limbs of a bearing English walnut tree growing in the city of Lancaster, Pa.

the top, seventy feet or more high. At St. Catherines, Ontario, we saw a large tree of the Franquette type that was carrying one of the finest crops of any tree that we saw. The owner told us that this was habitual with the tree, that it was a heavy annual bearer. A gentleman at Brantford, Ontario, has the genuine Vrooman Franquette grafted several years ago, which is doing very finely. The question naturally arises then, if we can grow these fine walnuts just as easily as any others (and there is no doubt but that we can) why not grow them to the exclusion of other varieties? I think there is no doubt but that these varieties will take the lead in our eastern plantings and deservedly so, but we have some very fine eastern varieties that are very good indeed and, as is now pretty well known, the trees are more likely to bear regular crops where several varieties are planted together to insure cross-pollination.

I have worked up, at considerable expense, a stock of several thousand grafted trees of the Wiliz Mayette and Vrooman Franquette, the two best varieties of these fine valuuts, and can now supply these trees in quantity at the

In the recent investigation of the English walnut trees growing within the state by Prof. Fagan of the State College, for the state of Pennsylvania, bearing English walnut trees were located in fourteen counties of the state and ranging from Lake Erie to the Maryland state line. Altogether, about two thousand trees were located and Prof. Fagan estimates that there are fully five thousand bearing trees in the state. Prof. Fagan visited many of these trees personally and is getting sample nuts from a large number of trees. The result of this survey is surprising to many and especially to those who have

been inclined to regard the growing of English Walnuts in this latitude as a "joke," and who have been more than willing to turn a deaf ear to any information along this line. Much credit is due Proi. Fagan for his persistent efforts and systematic work in making this survey. Similar surveys of many other states would prove equally surprising no doubt.

### Additional Varieties of the English Walnut.

WILTZ MAYETTE: The largest nut of all the Mayettes. Nut very large and smooth with a very bright, attractive appearance; the shell is soft and cracks easily, releasing the plump,



Fig. 2. A budded English walnut tree in my grounds planted in the dormant bud, spring of 1913. This tree has had no cultivation of any kind since it was planted, but it is growing in very rich soil. Photo September, 1915.

white meats whole. Like all nuts of this type, the quality and flavor of the nut is very fine. Tree very healthy and vigorous with me and will succeed anywhere that the walnut can be grown. With my present knowledge, if I were limited to one variety of the walnut, that variety would be the Wiltz Mayette.



Fig. 3. One of the grafted English walnut trees in my test orchard planted fall 1913. Note the growth of cowpeas about the tree. We sow these at the last cultivation, in July. Where we can't sow peas on the whole row, we sprinkle a handful around the tree and hoe them in.

VROOMAN FRANQUETTE: The Vrooman is an improvement on the old Franquette from which it originated. It has a thinner and softer shell and a more attractive appearance. The tree is also more vigorous with me. A close rival of the

Wiltz Mayette for popular honors. There is no doubt but that this and the Wiltz Mayette will lead all others in commercial plantings and very deservedly so.

The Hardy Pecans: I have this season a nice lot of budded pecans grown on root pruned stocks that will transplant better and give better results than any that I have been able to supply heretofore. You will be highly pleased with the root development of these trees. You can't buy such trees from any other source, so far as I know, and my supply is not large. The Busseron has proven to be the earliest to bear so far. Several trees of this variety only three years old bore a few nuts this past season, in Indiana. This and the Indiana originated further north than any others that we have and are perhaps the safest to plant farther north. All of the Indiana and Kentucky varieties are perfectly hardy here and make a very vigorous growth. With the single exception of caterpillars, no pests or diseases have attacked the pecan here. I believe that in the behavior of these hardy budded pecans there are some happy surprises in store for us, and I have great faith in them.



Fig. 4. A large top worked Frankquette walnut tree belonging to Mr. John Garretson, Adams Co., Pa. This was grafted upon black walnut, 12 or 14 feet high, by Mr. Garretson's father 18 years ago, with cions of the Franquette which were obtained from the late Felix Gillette, of California. This is a very fine tree and bears good crops of

The Chestnut and the Chestnut Blight: Owing to the blight having become well established in this locality and owing to the danger of sending it out on chestnut trees grown in a locality where the blight is prevalent, I have given up the propagation of the chestnut here and can only supply trees of the Paragon this season. My stock of these comes from a nursery which has no blight within 50 miles, so are safe to plant in localities which have no blight. The chestnut blight is working havoc here in the big Paragon orchards, as well as in the forests. I get a good many letters from people asking if the "Sober Paragon" is blight proof. For the information of those interested, I might say that the Sober Paragon and the Paragon is one and the same variety and is neither blight-proof nor blight-resistant.

The Filberts and Cob Nuts: The European Filberts and Cob Nuts succeed over a large area and are very desirable indeed. The only drawback to their successful culture on a large scale has been the Hazel Blight. Unlike the chestnut blight, this hazel blight works very slowly and is easily controlled, as Dr. Morris has demonstrated at his "Meribrook" farm in Connecticut. Dr. Morris made the statement at the Rochester convention that he could control the hazel blight and grow filberts more easily than he could peaches. He said that once or twice a year was sufficient to go over the bushes and cut out the blight and that he would prefer to do this rather than to dig out peach borers. Where there are no wild hazels near, one will not be troubled with the hazel blight. I have never seen it on the filberts in this locality There are many fruiting filberts in Connecticut, New York and this state. They are doing well on mountain soils generally, as well as on well-drained limestone soils. They are doing finely here and the fruit is fully as large and fine as the The plants of the following fine varieties are imported. They have been grown from layers, transplanted, and are therefore on their own roots.

Barcellona: Nut very large, round; tree very productive. One of the best here.

Cosford: Nut large, oblong: shell very thin, can often be cracked in the fingers. Tree said to bear abundantly.

Lambert: Nut large: tree a good grower and heavy bearer.

Considered the finest of all filberts.

Prices: Two-year stocky plants, about 18 to 24 inches high, 30 cents each or four for \$1.00; 2 to 3 feet, 40 cents each or six for \$2.00.

Shagbark Hickories: I get a good many inquiries for shagbark trees. I am propagating several remarkably fine varieties of the shagbark but will have no trees to offer before the fall of 1917. The shagbark is not more difficult to propagate than the pecan, provided one has good propagating wood, but the cions from old, bearing trees give very poor results and it is slow work working up Mother Blocks and nursery trees with only a limited supply of poor cion wood.

Seedling Trees: Owing to a few firms selling seedling walnut trees, under varietal names, a resolution was adopted at the Rochester convention condemning this practice and asking reliable publishing firms to carry no further advertising for firms selling seedling trees unless it was specifically stated that such trees were seedlings. The selling of seedling trees is perfectly legitimate, provided they are sold for what they are, but it is wrong to sell seedling nut trees under varietal names because seedlings cannot be depended upon to reproduce any given variety of nut any more than can seedlings of any other fruit be depended upon to reproduce a variety. The only way to reproduce or perpetuate a variety is by budding or grafting, rooted cuttings or layers.

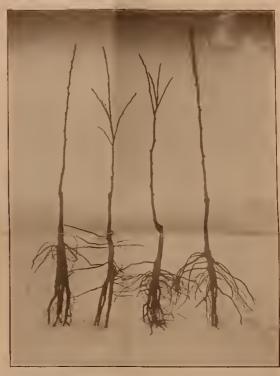


Fig. 5. Average trees showing the effect of cutting the taproots. The two trees on the left are budded pecans. The third tree is a grafted walnut, while the fourth is a budded walnut. We run a special root pruner under the young trees when one year old and this severing of the taproot causes the young trees to develop more and better lateral roots and several smaller taproots are usually formed instead of one long taproot with few or no lateral roots.

Transplanting Nut Trees: Nut trees, unless small, must have the tops reduced when transplated. This should be done not only to insure safety in transplanting, but to facilitate the forming of new feeding roots, without which the tree will linger along and possibly be several years getting started into vigorous growth, even with good care. If the top overbalances the root system, to any appreciable extent, the overtaxed root system is simply exhausted and if the tree does not die entirely, it will be several years getting started and will be far behind trees that were properly cut back when planted. Where wanted, we cut back trees for shipment properly and wax over all cut surfaces with a specially prepared tough wax. My root pruned trees transplant easily and safely if the top is reduced 1/3 to 1/2 and good, well-pulverized, top soil is well firmed about the roots as the tree is planted.

Fall Planting: You will gain some time by planting this fall, as the soil becomes settled about the roots and the trees start growth earlier in the spring and make better growth than do those planted in the spring. The land is also in much better condition for planting in the fall, the soil being warmer and much more friable than in the early spring. In this latitude, trees can be planted almost any time up to December 15th or 20th. They may be planted any time that the ground is not frozen, but we prefer November planting if we can get

Very truly yours,

J. F. JONES, The Nut Tree Specialist LANCASTER, PA.



nearly as large as the average Sweet Chestnut and of better quality than any Chestnut. The fruit is borne in large clusters, or racemes, and the tree is very productive. Especially fine for home use. The foliage is very dense, and the tree makes a symmetrical and beautiful specimen, being about midway between the Chestnut and Chinquapin in size. As a lawn tree it is very handsome.

Prices of grafted trees of all varieties, 3 to 4 ft., \$1 each; 4 to 6 ft., \$1.25 each.

### Planting and Care of Nut Trees

It is important that nut trees should be carefully handled and planted to get the best results. Keep the roots of the trees moist, and expose them to sun and wind as little as possible in planting. The holes should be dug large enough to accommodate the roots in a natural position, and in filling use only good top-soil about the roots. This should be well firmed or tamped about the roots, as the hole is filled, with the shovel or spade-handle or a tamping stick with a smooth, rounded end that will not bruise the roots. Don't put any manure or other coarse material in the holes about the roots. A few handfuls of bone meal or blood and bone, well mixed with the soil which is used about the roots, will do no harm and will give quite satisfactory results in growth.

It is especially important that Pecan or Walnut trees have the tops well reduced or cut back, either before or after planting, and before growth starts. This forces an earlier and stronger growth, which induces the formation of new feeding roots, and by fall the tree is established in its new location and matures and ripens its wood up well so that it will not be injured by extremes of cold. The trees will need no further pruning for several years. It is a mistake to try to prune and shape up very young trees. Let all of the growth remain for at least two years, as the trees need it. After the tree is well established and making good growth, it can be pruned and shaped up as wanted.

After the head is formed the tree will need little further attention.

After the trees are planted they should be cultivated for at least two or three years and, if in orchard form, crops of almost any kind can be planted between the trees, as, being 40 to 60 feet apart, they take up little room and are not materially in the way of cultivating other crops for several years. Where planted on lawns, along fences or avenues, or anywhere that it is not practical to cultivate, the trees should be hoed occasionally or mulched with strawy stable manure or litter that will keep down weeds and grass and conserve moisture. After the trees have become deep-rooted and well established, they will, perhaps, need little further attention except to keep up the fertility on land not naturally rich, although it will probably pay to cultivate the trees when in orchard form several years longer.

#### What Others Have to Say

"As a shade tree the Pecan has few equals, and, when planted in favorable surroundings, lives for centuries. Its gray trunk, its rugged branches, its wide-spreading, leafy top, are objects of lasting beauty in any landscape."—H. HAROLD HUME. (Prof. Hume is the author of "The Pecan and Its Culture.")

- "I have seen wild Pecan trees producing many bushels of nuts. I have seen a single tree the production of which was sufficient to support a small family for a year."—E. W. KIRKPATRICK.
- "I want, as a result of my agitation, to get a good many million trees of useful varieties planted out, in place of the miserable worthless willows, maples, ash, tuiip, elm and other fruitless trees with which the American nation is now shading itself."—Dr. J. Russell Smith.
- "It is generally understood that the Pecan is essentially a southern tree, and it is, therefore, especially worth while to emphasize the fact that its northern range carries it to southern Indiana, and that, in the valleys of the Wabash and its tributaries, there have been and are now being discovered varieties of a size, quality and productiveness which will make them successful rivals of the cultivated types now established in the South. There is no doubt that in the near future the Pecan will be found growing throughout New England and the more favored portions of New York, and that when this addition comes to our list of fruits, we shall have added what, in my estimation, is the king of nut fruits."—Prof. John Craig.

# A Few Letters and Testimonials from Customers and Correspondents

Philadelphia, Apr. 27, 1914.

Mr. J. F. Jones,

Box 527, Lancaster, Pa.

Dear Sir: I wish to thank you for your kind attention and also for the very nice stock which you sent me. I am very greatly pleased with them and will do everything I can to make them succeed. These are the first budded walnuts I have ever purchased and they are better than I thought they could be. The English walnut trees that I now have were grafted on regular Black Walnut Stock about in 1896-98 and I have been getting some very nice crops from them. I have eight in all, the largest one being about 30 to 35 ft. high with a diameter of about 9 to 10 inches.

Yours very truly, FENTON H. MIDDLETON.

Kings Park, N. Y., April 11, 1914.

Mr. J. F. Jones, Lancaster, Pa.

Dear Sir: I am quite interested in this matter of English walnut trees, as I planted a tree from Isaac Hicks of Westbury some 8 years ago, which has borne English walnuts two years running, and is a fine looking young tree.

Very truly yours, VENN HUGHES.

Springfield, Mass., May 4, 1914.

Mr. J. F. Jones, Lancaster, Pa.

Dear Sir: I duly received the Persian Walnut and Pecan trees. They are a mighty fine lot and were promptly planted. They look so rugged and healthy that I anticipate good results. Several years ago I purchased some Persian or English Walnut trees from a Nursery in New York State. They are a different looking tree entirely, and in no way to be compared in looks with those I received from you.

W. J. MACKAY.

West Chester, Pa., December 3, 1914. Mr. J. F. Jones,

Lancaster, Pa.

Dear Sir: I have read with very great interest your pamphlet on hardy nut trees. It is my desire to start some of these trees and I wish that you would select for me four English Walnuts and two Pecan Nuts and when the time comes for planting these, send me a memorandum of the cost and I will send you a check at once. When I was a boy my grandfather had an English Walnut tree, in his yard in West Chester, that was higher than a

two-story shed adjoining, was bearing, and must have been twenty-five years old. That was in 1865. This past year the tree was still living and gave a good crop, so it must be over seventy-five vears old.

Very truly yours,

HERMAN HOOPES.

PHILADELPHIA, PA., Nov. 23, 1914. Mr. J. F. Jones,

Lancaster, Pa.

Dear Sir: Your shipment of trees came to hand in fine shape. I am pleased with your stock of trees and believe that in my ground the trees will do well. I thank you for the extra Nebo. You certainly treated me fine in your attention and the visit to Mr. Rush's place was appreciated, I can assure you.

O. G. Worman.

Morristown, N. J., May 1, 1914.

Mr. J. F. Jones,

Willow Street, Pa.

Dear Sir: I am enclosing herewith my check covering bill of nut trees, dated March 14. I wish to thank you for your selection of these trees. They are certainly the nicest trees that I have had anything to do with. Very truly yours, F. W. Schmidt.

Georgetown, Conn., Dec. 2, 1914. Dear Mr. Jones: I found the trees today at the station and they were in first class condition, nice and moist and with splendid roots. This root system is a great improvement. I suppose it comes from running the digger under the trees.

DR. W. C. DEMING.

LOVINGSTON, VA. (Route 1), Dec. 3, 1914. Mr. J. F. Jones,

Lancaster, Pa.

Dear Sir: Our order of Walnut trees received and is satisfactory. I have run short about a dozen in planting the land I had prepared and am writing to ask you to reserve that many more for us for spring delivery—presume it is too late for shipping at this time. The root system of these trees is the best of any trees of any kind we have ever planted here.

Yours very truly, GEO. P. DODGE.

(The above shipment was 70 trees.)

Pittsburgh, Pa., April 28, 1914.

Mr. J. F. Jones, Lancaster, Pa.

Dear Sir: Trees sent by you received in A-I condition, same being due to the fact that they had been packed and shipped that way. Thanking you for fine stock and good treatment in every way, I am,

Yours truly,

M. E. Alker.

Ponkapoag, Mass., April 18, 1914.

J. F. Jones,

Willow Street, Pa.

Sir: The four nut trees which you sent Mr. Hamlin were excellent specimens, and we all are much pleased with them. We think that they will prove of considerable interest, hereabout, as we know of none in this immediate vicinity.

Thanking you for the selection, and for the excellent packing which insured their fine condition

on arrival, we remain,

Yours, etc.
Stonebridge Nursery Co.

I believe that the English walnut is going to be more profitable in the upper South than the pecan. Not long since, in visiting a friend near Milford, Delaware, I was interested in a pretty and thriving orchard of English walnuts he had planted. He said when he bought the farm, there was an old tree of this nut on the place, which made fine crops of fine nuts, and he concluded that if one tree would succeed an orchard would be a profitable thing, and he planted it, and when I was there the trees were promising to be soon profitable.

W. F. Massey.

(The above is from *Southern Planter*, December issue, by Prof. W. F. Massey.)

NEW YORK, Nov. 30, 1914.

Mr. J. F. Jones, Willow Street, Pa.

Dear Mr. Jones: The Walnut trees which were sent to Cos Cob by mistake were so well packed that after two weeks of delay I find the roots still moist and all in good condition. We will give some credit to the Adams Express Agent at Cos Cob for taking the trouble to put them in a cool place.

Yours truly,

Rob't T. Morris.

(Dr. Morris was the first President of our Northern Nut Grower's Association, and is planting nuts quite largely. He is also noted for his scientific work with nuts, including the hybridizing and originating of new varieties of nuts.)

RIDGECREST, N. C., May 1, 1914.

Mr. J. F. Jones, Lancaster, Pa.

Dear Sir: Your 1914 catalogue of Hardy Nut Trees has just fallen into my hands, and I wish to say that your plan of grafting the Persian, or English, walnut on the common black walnut stock, seems to me to fulfil the conditions necessary to a most general and profitable culture of those nuts.

Not until I saw your catalogue have I known of a nursery doing the work of propagating the Persian walnut on what seemed to me to be the correct

principle.

Sincerely, Southern Baptist Assembly.

GREAT BEND, PA., March 24, 1915.

Mr. J. F. Jones, Lancaster, Pa.

Yours truly,

WM. J. DAY.

LOGAN, UTAH, April 30, 1914.

Mr. J. F. Jones, Lancaster, Pa.

Dear Sir: Your shipment of nut trees was received in the best of condition and planted the day following the arrival of same. I await with interest the results of this variety test of nuts in Utah and will keep you acquainted with the results. I found only Sunday that there is growing within a few miles of the Experiment Station Grounds here a seven or eight year old English Walnut scedling which produced half a bushel of good marketable nuts last year. This encourages us to have more faith

in the walnut industry for this state.

Very truly yours,
UTAH EXFERIMENT STATION.

## J. F. JONES



Mr. Rush at home among the Walnuts

# J. F. JONES

The Nut Tree Specialist : LANCASTER, PA.